caBIG Architecture Workspace

October 25, 2004

Formation of Subgroups

▶ Formation of the following sub-groups

- Interface Architecture

- Information Architecture

- System Architecture

- Security and Access Control

- Software Development – Best Practices and Standards

- ID Management

- Workflow

Key Decisions to date

▶ XML will be used as the primary data exchange format with allowances for binary format that do not need XML

▶ XML will be the standard data and metadata exchange format
  – Some metadata would be treated as data

▶ XML schemas should be used to model structure of XML

▶ A Common Query Language for data and metadata is required
  – This Query Language should be expressible in XML

▶ Agreed on need for a solution to universal stable identifier for data objects

  • Exploring LSID ; OID; Etc.

▶ Decided on using Globus Toolkit Version 3.2

▶ Decided on using OGSA-DAI Version 4.0

▶ Use Enterprise Architect for UML Modeling

▸ *Mentoring Team Members* Assignment per Developer Project

▸ Role of Mentoring Team Member

  – Guide the Development Projects from the Domain Workspaces towards Silver Level Compliance

  – Guide with overall Architectural Best Practices

    • System Architecture

    • Interface Architecture

    • Information Architecture

    • Development Methodologies

caGRID - Phase I

▸ Activities to Date
  – Requirements analysis for caCORE virtualization
  – First iteration use cases for
    • Advertisement
    • Discovery
    • Query
    • Object Mapping
    • Semantic Mapping
  – Evaluation of candidate technologies
  – Implementation of caGRID prototype
  – Web presentation/demonstration to caBIG Architecture Workspace
  – caGRID white paper released

caGRID Team Mission

"Define the caBIG system architecture that satisfies the requirements of the caBIG Community"

Project Team

- caBIG Architecture Workspace

- caBIG VCDE Workspace

- William Sanchez (SAIC)

- Tara Akhavan (SAIC)

- Steve Lagou (Panther Informatics)

- Tahsin Kurc (OSU)

- Scott Oster (OSU)

- Shannon Hastings (OSU)

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- Michael Keller (BAH)

Proposed High-Level – Time Line

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Requirements Analysis	■	■	■						
System Architecture		■	■	■					
Reference Implementation	■	■	■	■	■	■	■	■	■
Technology Evaluation	■	■	■	■	■	■			

Requirements Analysis

▸ Define high-level requirements (collaboration/grid) for each workspace
  – Identify actors (data sources, applications, external entities like the FDA)
  – Identify significant use cases, mainly collaboration, use cases

▸ Create a caBIG use case model
  – Identify the common use cases among workspaces
  – Identify common actors
  – Detail common use cases

▸ Determine supplementary requirements
  – Identify supplementary requirements like security, performance, open source, etc.

▸ Perform a unified use case analysis

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caBIG cancer Biomedical Informatics Grid